Taiko Classification and Manufacturing

BY MICHAEL GOULD

The roots of taiko may be found in a long and diverse history of religion and war. In Japan, a large portion of the drums found within contemporary taiko ensembles have their roots established in Buddhist religious services. For example, the uchiwa daiko helps monks and the congregation keep time while chanting. Not only is the uchiwa found inside the temple, but it is also played often by monks marching down the streets during festivals.

Taiko has also taken part in Japan's feudal reign and associated battles. A legend exists from the sixteenth century that the Emperor Keitai brought a large drum from China to raise the morale of his troops and frighten hostile enemies from his castle in the town of Mikuni. The emperor called his drum Senjin Daiko or "front drum." Taiko drums have also been used to delineate town borders by how far the drums' sound traveled. With the many myths, outside influences and vast history of taiko and its associated genres, it is very difficult to pinpoint its evolution and musical influences. This article will focus on classifying taiko and on an explanation of the construction process.

The construction of a taiko drum consists of a very long and labor-intensive process beginning in the northern forests of Japan. The process is split between shell construction and mounting of the head. Each entails rigorous work and high craftsmanship. The completion of a single drum involves a minimum timespan of four years.

Before embarking on the construction process, a brief overview and classification of the taiko family will help in distinguishing various drums and their associated construction techniques.²

TAIKO CLASSIFICATION

Classifying taiko can take a variety of paths. One can categorize the diversity of drums from the genre in which they are found. These can include Noh and Kabuki theater, religious music, Gagaku Imperial Court music, festival music, and a variety of folk music and theatricals.

Within a contemporary taiko ensemble, such as the Kodo Drummers of Japan, an eclectic mix of instruments is taken from a variety of genres.

Another form of classifying taiko may be based on the way in which the head is fastened onto the shell, of which there are two methods. The first is by tacking the head onto the shell, called "hyou." The second method is by rope tension, called "shime." Two exceptions to these large categories include drums without shells and drums with lug tension.

Taiko shells are constructed in two configurations—nagadou and stave construction. The first style, nagadou, has a solid shell cut from a single log. Since this is much more labor intensive, it is also very expensive. Finding trees for larger sized shells has become quite difficult due to a depleted reserve of oldgrowth trees. This depletion adds significantly to the expense of the large drums in the nagadou style.

A less-expensive alternative is stave construction. Similar to a conga drum, multiple strips of lumber make up a shell. Most often, larger drums employ stave construction. This process can be used to make any size or style drum. In the last decade, contemporary drum makers have experimented with plastic shells to cut down on expense and weight, and to increase ease of use and durability.

The dimensions of any taiko are measured in shyaku and sun. One shyaku equals 30 centimeters or 11.82 inches. One shyaku divides into ten sun. This equates to 3 cm per sun. For example, a drum measuring one shyaku and two sun would be 36 centimeters or 14.2 inches.

A common error in classifying taiko comes from labeling the drum by its size and not by the type of drum. For example, the largest drum in an ensemble is commonly referred to as O-daiko. The "O" is an honorific signifying it is the largest drum. The actual classification or type may be a nagadou or okedou drum, but it is simply called O-daiko. A medium sized drum can be called chu-daiko and the smallest ko-daiko. Taiko can also be

referred to as sho, chu and dai (small, medium and large). Any of the classifications of drums may be at times referred to by size and not type.

The following is a brief explanation of some of the drums found in contemporary and traditional taiko ensembles throughout Japan. There are two main divisions for classifying the drums: tacked heads and rope tension. There are two exceptions: shell-less and lug tension drums. The following key will help explain the breakdown of each drum.

Key:

W: Wood type

S: Typical size

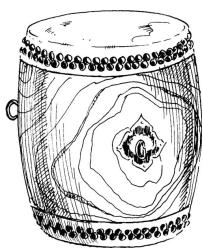
E: Ensemble

O: Other pertinent information

TACKED HEADS

Nagadou Daiko





W: keyaki (zelkova serrata), chestnut, camphor, sen

S: 30-180cm

E: Contemporary taiko ensembles, temples, folk music

O: A Japanese translation of nagadou would break the word into two parts: "naga" meaning long and "dou" the body or trunk. This drum is made from a

single hollowed-out log and tacked-on heads. The smallest drum, which measures 30 cm (11.82 inches) or one shyaku, costs \$1,320 (U.S.). The largest drum, measuring 180 cm (5'9") or three shyaku, costs \$108,000!5

Miya Daiko





S: 30-180cm E: Temples

O: The miya daiko are the exact same drums as the nagadou, with the only distinction being the ornamented stands to hold the drums. The reason for the ornamented stands is for use in temples. Miya means temple or shrine.

Hira Daiko (Gaku Daiko)





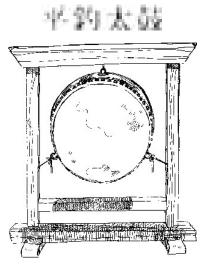
W: keyaki (zelkova serrata), chestnut, camphor, sen

S: 35-75cm

E: Kabuki theater, Japanese folk songs, temples

O: The hira daiko is similar to the nagadou drum because of its tacked heads and solid shell. The drum has a shallow shell, which makes for a higher pitch and faster decay than the deeper shells of the nagadou daiko. It is usually positioned like a snare drum-flat on a wooden stand. In Kabuki theater the hira daiko is referred to as gaku daiko. It is meant to imitate the sound of the da daiko from Gagaku Imperial Court music. It is also frequently used in war scenes in the Kabuki theater.6

Hiratsuri Daiko



O: This is the same exact drum as hira daiko except suspended on a stand. It literally means "flat hung drum."

Tsuri Daiko



E: Gagaku Imperial Court music

O: The tsuri daiko accompanies a dance known as the bugaku. The performer stands in front of the drum to keep time for the ensemble. Used in festivals and parades, the tsuri daiko is a highly ornamented drum. It is always played with two sticks while suspended on a stand. The only difference between the hiratsuri daiko and tsuri daiko is the ornamentation.7

ROPE TENSION

Shime Daiko



W: Keyaki

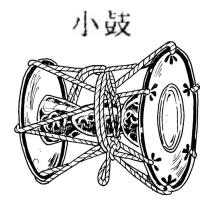
E: taiko ensembles, temples, Noh theater, traditional folk groups

O: When used in a folk setting the drum is called Minyoushime Daiko. The prefix "minyou" translates to "folk song." The shell and skin of the shime daiko are usually very thick. It is the highest pitch and most cutting drum of the taiko family. Shime daiko are sometimes referred to as tsukeshime and fushime daiko. It can also be constructed using a series of cast-iron lugs instead of rope to provide tension. These lugs fit into a metal collar



found around the middle of the drum. The lugs help attain an even higher degree of tension than rope.

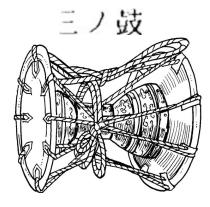
Kotsuzumi



E: Noh and Kabuki theater
O: An hourglass-shaped drum with two heads. It contains two sets of ropes to hold the head in place. One set of ropes holds the head on the shell while the other encircles the tension ropes to change the pitch of the drum. This is very similar in nature to an African talk-

ing drum. The heads are usually lacquered with a design. The ko-tsuzumi is the smallest of three drums used in Noh and Kabuki theater.⁸

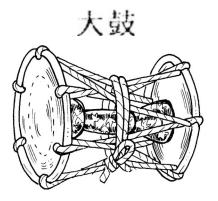
San-no-tsuzumi



E: Gagaku Imperial Court music
O: Hourglass drum of Korean origin. It
is also referred to sometimes as san-ko
daiko. Although this is a two-headed
drum, only one side is struck. It is usually performed upon by the leader of the
Gagaku Imperial Court Ensemble. The

San-no-tsuzumi daiko is one of the oldest drums found in Japanese music.⁹

O-tsuzumi

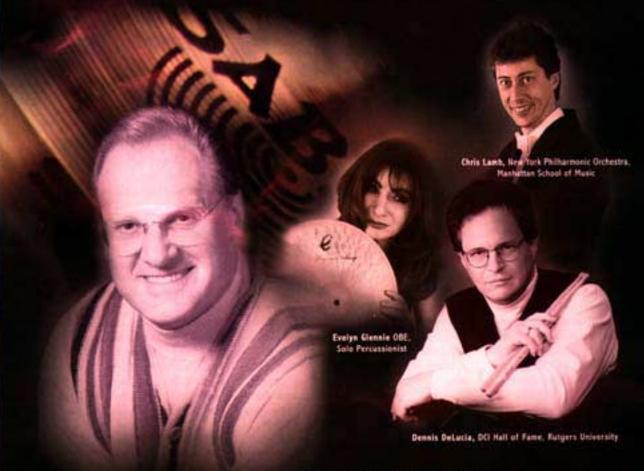


E: Noh theater

O: This is the large version of the tsuzumi-style drum. It is used in the Noh theater ensemble along with the kotsuzumi. It is made from cherry wood and has simple carvings on the shell for ornamentation. Unlike the ko-tsuzumi, the o-tsuzumi does not have lacquered heads. The drum is held on the player's



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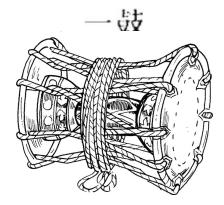


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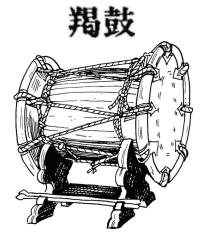
left hip and struck with the fingers of the right hand. 10

Ik-ko Daiko



E: Gagaku Imperial Court music
O: Instead of being played within the ensemble, a dancer wears the drum over the right shoulder. It belongs in the same family as the tsuzumi-style drums.

Kak-ko Daiko



E: Gagaku Imperial Court musicO: The kak-ko drum is the timekeeper

of the group. The location of the drum is important within the ensemble and is always located to the left of the gak-ku daiko performer. The kak-ko daiko is played seated and held by an ornamented stand.

Da Daiko

麗太鼓

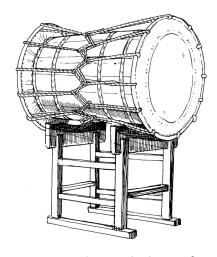


E: Gagaku Imperial Court music O: This is the largest drum found within the Gagaku Imperial Court music. They are always played in pairs and are

highly ornamented. The drum appears quite large because of a facade encircling the entire drum. These drums are played during the bugaku dance to accentuate the movement of the dance.¹¹

Okedou Daiko

桶胴太鼓



W: Japanese Cypress (Jin), straight grain Japanese Cedar

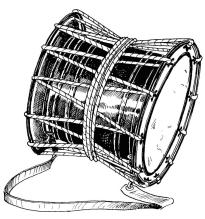
S: 30-180cm

E: Contemporary taiko ensembles, temples, folk music

O: The name of this drum means "tub" or "pail." It is constructed similar to a conga with stave construction. Since these are not made from one solid piece of wood, they can be made much larger and cheaper. The heads overlap the shell and are held on with rope tension instead of tacks. The counterhoop is made of metal to add extra strength.

Daibyooshi Daiko

大拍子太鼓

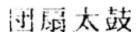




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- E: Contemporary taiko ensembles, temples, folk music
- O: This drum is similar to Okedou in construction, but is usually much smaller. It is played with thinner sticks and sometimes played while slung over the right shoulder of the performer.

SHELL-LESS DRUM Uchiwa Daiko (Daimoku Daiko)





- E: Temples
- S: 30-36 cm.
- O: These are paddle drums used to keep time during Buddhist chants. These drums are also used by monks in parades and festivals. When a chant is painted directly on the head, they are referred to as daimoku daiko.

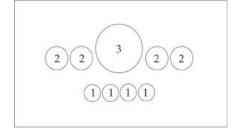
PLACEMENT

As one can see, the diversity of drums, names, and genres in which taiko appear can be very confusing. In order to further illuminate the many styles and types of drums, the following diagrams have been supplied. The first diagram shows one possible configuration for a contemporary taiko ensemble. The second diagram shows the placement of drums found within the Gagaku Imperial Court.

Contemporary Taiko Ensemble Diagram

Key:

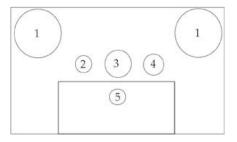
- 1. Shime Daiko (Lug Tension)
- 2. Chu Daiko-Nagadou Style
- 3. O Daiko-Okedou Style





Gagaku Imperial Court Diagram Key:

- 1. Da-daiko
- 2. San-ko daiko (san no tsuzumi)
- 3. Gak-ku daiko (tsuri daiko)
- 4. Kak-ko daiko
- 5. Ik-ko-held by dancer



TAIKO CONSTRUCTION

I had the unique opportunity to talk with Yukihiro Umetsu, the president of Umetsu Daiko, to learn about his company's process and unique history of taiko drum manufacturing. The company located in Hakata in Fukuoka Prefecture has been making drums since 1821. Mr. Umetsu is the seventh generation of drum makers in his family. After much coaxing he revealed some details of how his company constructs taiko drums. Since most taiko manufacturers receive their drum shells rough cut, most manufacturers do the final process of finishing the drum. 12 This process will be explained in three parts: shell construction, head treatment and final assembly.

SHELL CONSTRUCTION

The shell is the most difficult and time-consuming process in the manufacturing of a taiko. After an order has been placed, Umestu Daiko calls their lumber supplier to find the appropriate diameter

log. After the tree has been felled, it must sit for one and a half years to dry. After the appropriate time, the tree (log) is cut to the proper length for the drum. The rough shape of the drum is then made using a machine, or chiseled out by hand depending on the size of drum and the supplier. A good craftsman can chisel out two or three rough shells per day. The shell must then sit for three years to pass





completely dry! It is this point in the process that most taiko manufacturers receive their shells.



Once a shell has been delivered, preparations begin for final shaping of the inside and outside of the drum. The first step on the inside is to chisel out the bearing edge. This is done with a deepgrooved chisel. Once both sides are complete, the inside is sanded smooth except for below each of the bearing edges. The bearing edge remains the thickest part of the drum to keep the shell's integrity.



Once the inside has been finished, the outside of the drum is sanded for staining. Using several grades of sandpaper, an electric sander finishes the outside. After this is completed, the handles are nailed onto the drum. ¹³ With heavier drums, the handles are more decorative than functional. After the handles are in place, preparations begin to mount the head on the shell.



Head Preparation

The first step in making a taiko head is to remove the hair from a hide. This is done by soaking the hide in a river or stream for one month. The winter months are more conducive for hair removal because of the colder water temperatures. The process of soaking the head is called kanzurashi. Soaking the head in rice

bran also loosens the hair from the hide. After removing the hair, the head must sit and dry for one year. Once dried, the head is cut to the appropriate size and thickness depending on the style of drum and its use. For example, a drum used indoors in a temple can have a much thinner head than one used by a taiko ensemble in an outdoor performance. The skin has loops added in the final preparation for mounting the head on the drum.

Fitting the Head

To make the head more pliant to fit over the shell, the head is soaked in water. At Umetsu Daiko, the smaller drums are soaked in a tub. For larger sized skins, the water is poured directly onto the head to make it more malleable.



After the head has been placed on the shell, metal rods is placed through each of the loops of the head. The rope that is used to tighten down the head is held in place by the rods. With the metal rods in position, the drum is moved to a hydraulic table for tightening.

The hydraulic table consists of a grid of timbers on which a platform with hydraulic jacks are placed. Each rope coming down from the head forms a loop, which is placed under its respective timber. Hydraulic jacks is used to provide tension to stretch the heads. Once stretched, small lengths of bamboo are twisted through each of the ropes to even out the tension around the drum. When this is complete it is left to dry. The sound is checked and adjusted up or down in pitch with the press and bamboo pieces. After the head has dried, a measuring tool marks off where each of the tacks is to be placed on the head. This tool is similar to a compass with sharp

points on both ends and leaves a small guide hole. These tacks aid in keeping the head in place and taught. A medium sized drum has around 300 tacks per side.



After the head has been tacked down, the excess hide is removed. This is done using a scoring tool around the circumference of the drum. Once scored, a larger knife is used to cut off the excess skin. The drum is now ready to be stained.



The staining process is the last step. Once the first coat of stain is used, a light coat of fine sawdust is applied as a buffer to give the drum a high luster.





CONCLUSION

Taiko's roots began within the temples of old Japan and have wound their way to the forefront of Japanese contemporary stage productions. In the last twenty years, taiko has exploded into a world-wide art form, re-inventing old genres into a new venue that has created a huge following. Although stage versions of taiko are relatively new, the actual drums and their manufacturing process are steeped in years of tradition. This tradition, once unveiled, reveals a marvelous mixture of tradition, music and movement.

My special thanks to Sayuri Ohman for her countless hours of translation, Steven Harvey for the excellent illustrations found in this article, and Rich Holly for his advice and editing.

END NOTES

¹ When a modifier is put before the word "taiko" a euphonic change takes place from "taiko" to "daiko." For ex-

ample: O-daiko means large drum. It simply sounds more agreeable in spoken or written Japanese.

² Within a taiko ensemble, there are many other instruments outside of the membranophone family. Most of the instruments are idiophones including: take (bamboo log hit with sticks), gane (bell), shakubyoshi (wooden sticks hit together), suzu (bell tree), mokkin (xylophone with 16 keys), and chappa (small cymbals). This article concerns itself primarily with the construction and classification of Japanese taiko membranophones.

³ Hyou is an exact translation of a Japanese kanji character meaning "tack."

⁴ Shime comes from the verb shimeru, which means to shut, close, tie or fasten. Most shime drums have the heads fastened by rope tension. There are, however, some shime drums that use lug tension to get the required high pitch of the drum.

⁵These prices are based from Umetsu Taiko manufacture in Hakata city, Fukuoka Prefecture, 1996.

⁶ Malm, William. *Japanese Music and Musical Instruments*, Tokyo: Charles E. Tuttle Co., 1968, pg. 225

⁷ Ibid. pg. 92

8 Ibid. pg. 117

⁹ Ibid. pg. 93

¹⁰ Ibid. pg. 124

¹¹ Ibid. pg. 92

¹² Rough cut simply means the log has been hollowed out and shaped to the specified size.

¹³The handles are called "Kan" in Japanese.

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